## Eriogonum lewisii Reveal (1985)

## LEWIS BUCKWHEAT

**FAMILY:** *Polygonaceae*, the buckwheat family.

STATUS: Heritage Program SENSITIVE LIST, ranks: G2G3Q S2S3 USFWS/ESA: species of concern. STATE OF NEVADA: none. BLM: Special Status Species. USFS: Humboldt-Toiyabe NF Sensitive Species. NNNPS: watch list.

- POPULATION CENSUS: 19 occurrences mapped at 1.0 km (0.6 mi) separation, OR 37 occurrences mapped at 0.16 km (0.1 mi) separation; total estimated individuals 1,000,000+, total estimated area 44.6+ ha (110+ ac). TREND: DECLINING.
- **IMPACTS AND MAJOR THREATS:** Mineral exploration and development, development and maintenance of roads and electronic sites, off-road vehicle travel, trampling by livestock or feral animals, fire and fire suppression activities. Most sites have sustained some level of impacts. Four occurrences were immediately adjacent to an expanding open-pit gold mining operation in 1996.
- **INVENTORY EFFORT:** Surveys have been extensive, but much potential habitat remains to be examined. Most recent entered survey 1997, average year of last survey 1995. **Years since last entered survey** (percent of mapped records at various survey ages): **0-5 yrs:** 21.6%; **6-10 yrs:** 75.7%; **11-20 yrs:** 2.7%.
- **LAND MANAGEMENT** in decreasing predominance: Humboldt-Toiyabe National Forest, private lands, U. S. Bureau of Land Management, designated wilderness.
- **RANGE:** Elko and Eureka counties, Nevada. A specimen reported from Utah by Reveal (1985) was later identified by Reveal as Eriogonum desertorum. **Nevada endemic.** Maximum **range dimension 165.5 km (102.9 mi)** excluding most disjunct record. **Type specimen** collected in Elko County.
- ELEVATIONS RECORDED: 6470-9720 feet (1972-2963 meters).
- **HABITAT:** Dry, exposed, shallow, relatively barren and undisturbed, rocky residual soils on convex ridge-line knolls and crests underlain by siliceous carbonate rocks, on flat to moderately steep slopes of all aspects, but with the densest stands on southerly aspects, codominating with Artemisia arbuscula and Elymus elymoides. Occasionally found at lower elevations on clay hills derived from silty carbonate or calcium-rich siliceous rock.
- PHENOLOGY: flowering late-spring to summer. Range of most frequent survey months: July-October.
- **LIFE-FORM AND HABIT:** small long-lived perennial cushion.
- **DESCRIPTION:** A small perennial herb, with flower stems covered with long, fine hair and yellow flowers that bloom June-September. This taxon may not be distinct at the species level; it may be a variety of E. desertorum (or a variety within a complex that includes E. desertorum). **Distinguishing features:** Similar to Eriogonum desertorum, from which it is distinguished mainly by smaller leaves, and somewhat smaller flowering stems and flowers.
- **PHOTOGRAPHS:** Anderson et al. (1991), Morefield (1996), Smith and Curto (1995); Nevada Natural Heritage Program images web page (1998-present), slide collection (1986-present), and files.

**ILLUSTRATIONS:** Anderson et al. (1991).

OTHER GENERAL REFERENCES (listed separately): Reveal (1985).

## **SPECIFIC REFERENCES:**

- Frank, C. A., and Greystone. 1998. Sensitive plant surveys: Independence Mining Company, Inc., Elko County, Nevada, July 1997. Greenwood Village, Colorado: Greystone, prepared for Independence Mining Company, Inc., Elko, Nevada.
- Morefield, J. D. 1996. Current knowledge and conservation status of Eriogonum lewisii Reveal (Polygonaceae), the Lewis buckwheat. Carson City: Nevada Natural Heritage Program, status report prepared for the U. S. Fish and Wildlife Service, Reno.
- Reveal, J. L. 1985. New Nevada entities and combinations in Eriogonum (Polygonaceae). Great Basin Naturalist 45: 276-280.
- White, M. R. 1994. Sensitive plant species surveys, Mountain City Ranger District, Humboldt National Forest. Elko, Nevada: U. S. Department of Agriculture, Humboldt National Forest.
- **OF FURTHER INTEREST:** Appears to intermingle or intergrade somewhat with Eriogonum desertorum at lower elevations, and may only be varietally distinct from that species.